

1. A T.V. module adapted for use in conjunction with a remotely controllable associated unit, comprising:

a remote-control signal transmitter adapted to transmit signals representative of control codes to the associated unit;

means adapted to analyze the operation of said associated unit in response to said control codes;

a memory operative to store remote-control codes including the energization codes for associated units provided by a variety of manufacturers; and

an electronic controller means operative to perform the following functions:

cause said remote-control signal transmitter to transmit test control signals to said associated unit,

cause said means adapted to analyze the operation of said associated unit to determine whether [control codes related to] the associated unit has been energized in response to said test control codes, and

cause the control codes determined to be related to the associated unit to be stored in said memory.

2. The invention of claim 1 in which the T.V. module is a video recorder.
3. The T.V. module of claim 1 wherein the associated unit is a cable tuner/descrambler.
- 15 4. The T.V. module of claim 1 wherein the associated unit is a satellite receiver.
5. The T.V. module of claim 1 wherein the associated unit is a video recorder.
6. The T.V. module of claim 1, further including
20 means adapted to receive an output signal from the associated unit, said controller being operative to analyze the output signal in order to determine the operation of the associated unit in response to said test control-code signals.
- 25 7. The T.V. module of claim 6 wherein said output signal is a video signal.
8. The T.V. module of claim 7 wherein said controller is operative to analyze the synchronization of said video signal.
- 30 9. The T.V. module of claim 1, further comprising a connected T.V. receiver, means to receive an output signal from the receiver, wherein the controller is operative to cause the transmitter to transmit test control-code signals to the receiver; analyze the resulting operation of the receiver in order to determine control codes
35 for the receiver; and store the control codes for the receiver in said memory.
10. The T.V. module of claim 9 wherein said controller is further connected to an audio sensor operative to receive an acoustic signal from said receiver, and to
40 detect a variation in said acoustic signal.

11. In a T.V. module adapted for use in conjunction with a remotely controllable associated unit, the T.V. module including a remote-control signal transmitter adapted to transmit control signals to the associated unit; means for analyzing the operation of the associated unit; and a memory adapted to store remote-control codes, the method of determining control codes for the associated unit, comprising the following steps [of] , which are performed each time the T.V. module is energized:

transmitting test control codes to the associated unit;
analyzing without operator intervention the resulting operation of the associated unit in order to determine its control codes; and

storing the control codes in a memory.

12. The method of claim 11 wherein the step of elec-
55 tronically analyzing the resulting operation of the asso-
ciated unit in order to determine its control codes in-
cludes the step of analyzing an output signal from the
associated unit.

13. The method of claim 12 wherein the step of ana-
60 lyzing said output signal includes the step of analyzing
a video signal.

14. The method of claim 13 wherein the step of ana-
lyzing a video signal includes the step of analyzing the
synchronization of said video signal.

65 15. The method of claim 14 wherein the step of ana-
lyzing said output signal includes the step of analyzing
an acoustic signal.

16. A T.V. module adapted for use in conjunction with a remotely controllable T.V. receiver, comprising:

a remote-control signal transmitter adapted to transmit signals representative of control codes to the T.V. receiver;

means adapted to analyze the operation of said T.V. receiver in response to said control codes;

a memory operative to store remote-control codes; and
an electronic controller means operative to perform the following functions:

cause said remote-control signal transmitter to transmit test control signals to said T.V. receiver,

cause said means adapted to analyze the operation of said T.V. receiver to determine control codes related to the T.V. receiver in response to said test control codes,
and

cause the control codes determined to be related to the T.V. receiver to be stored in said memory.

Sub B'
17. *apparatus*
The invention of claim 16 in which the T.V. module is a video recorder.

T.V. module
18. *apparatus*
The T.V. module of claim 16 wherein the associated unit is a cable tuner/descrambler.

19. *apparatus*
The T.V. module of claim 16 wherein the associated unit is a satellite receiver.

20. *apparatus*
The T.V. module of claim 16 wherein the associated unit is a video recorder.

21. The T.V. module of claim 16, further including means adapted to receive an output signal from the T.V. receiver, said controller being operative to analyze the output signal in order to determine the operation of the T.V. receiver in response to said test control-code signals.

22. The T.V. module of claim 16 wherein said controller is further connected to an audio sensor operative to receive an acoustic signal from said receiver, and to detect a variation in said acoustic signal.